IN THE CLAIMS:

Please amend Claims 2, 3, 5, 7, 8 and 10 as shown below. The claims, as pending in the subject application, now read as follows:

1. (Canceled)

2. (Currently amended) An imaging sensor which includes:

a sensor array segmented into plural disjoint segments;

a respective plurality of output pipelines, provided in said imaging sensor, one of said output pipelines corresponding to each of said plural segments of the sensor array; and

duplicating means, provided in said imaging sensor, for duplicating image data for an overlap region at each boundary between segments,

wherein said duplicating means comprises charge or voltage duplicating circuitry, provided in said imaging sensor, that obtains multiple outputs for each pixel in the overlap region, and wherein said duplication circuitry provides each of the multiple outputs to individual ones of said output pipelines that border on the overlap region.

3. (Currently amended) An imaging sensor which includes:

a sensor array segmented into plural disjoint segments;

a respective plurality of output pipelines,[[.]] provided in said imaging sensor, one of said output pipelines corresponding to each of said plural segments of the sensor array;

duplicating means, provided in said imaging sensor, for duplicating image data for an overlap region at each boundary between segments; and

a respective plurality of processors, each processor coupled to a respective one of the output pipelines,

wherein said duplicating means includes an output pipeline, provided in said imaging sensor, for outputting pixel values of pixels in the overlap region to an intermediate buffer, the intermediate buffer providing duplicate pixel values to each processor whose segment borders the overlap region.

4. (Original) An imaging sensor according to Claim 3, wherein the intermediate buffer is provided off-chip from the sensor array.

5. (Currently amended) An imaging sensor which includes:

a sensor array segmented into plural disjoint segments;

a respective plurality of output pipelines, provided in said imaging sensor, one of said output pipelines corresponding to each of said plural segments of the sensor array;

duplicating means, provided in said imaging sensor, for duplicating image data for an overlap region at each boundary between segments; and

a respective plurality of processors, each processor coupled to a respective one of the output pipelines,

wherein ~~said duplicating means comprises~~ a communication link is provided between processors that border the overlap region, and wherein duplicate pixels are communicated between processors over the communication link.

6. (Canceled)

7. (Currently amended) A method in an imaging sensor which includes a sensor array segmented into plural disjoint segments including at least a first segment and a second segment separated by a boundary and an output pipeline and a duplicating circuit, wherein said output pipeline and said duplicating circuit are provided in said imaging sensor, the method comprising the step of:

duplicating, by said duplicating circuit, image data for an overlap region at the boundary, which further comprises the steps of:

storing charges or voltages from a non-overlap region of the first segment into said output pipeline;

storing charges or voltages from the overlap region of the first segment and the second segment into said output pipeline; and

providing charges or voltages from said output pipeline to a processor.

8. (Currently amended) A method in an imaging sensor which includes a sensor array segmented into plural disjoint segments including at least a first segment and a second segment separated by a boundary and an output pipeline and a duplicating circuit, wherein said output pipeline and said duplicating circuit are provided in said imaging sensor, the method comprising the step of:

duplicating, by said duplicating circuit, image data for an overlap region at the boundary, which further comprises the steps of:

storing charges or voltages from a non-overlap region of the first segment into said output pipeline;

sending charges or voltages from the overlap region of the first segment and the second segment to a shift out line;

storing charges or voltages from the shift out line to an intermediate buffer; and

providing charges or voltages from said output pipeline and from the intermediate buffer to a processor.

9. (Original) A method according to Claim 8, wherein the intermediate buffer is provided off-chip from the sensor array.

10. (Currently amended) A method in an imaging sensor which includes a sensor array segmented into plural disjoint segments including at least a first segment and a second segment separated by a boundary and output pipeline and a duplicating circuit,

wherein said output pipeline and said duplicating circuit are provided in said imaging sensor, the method comprising the step of:

duplicating, by said duplicating circuit, image data for an overlap region at the boundary, which further comprises the steps of:

storing charges or voltages from the first segment into said output pipeline;

providing charges or voltages from said output pipeline to a first processor, the first processor for processing pixel data for the first segment; and

communicating pixel data for the overlap region between the first processor and a second processor, the second processor for processing pixel data for the second segment.